REMARKS/ARGUMENTS

The claims are 1-12. Claim 1 has been amended to improve its form. Reconsideration is expressly requested.

Applicants' understand that the foreign documents corresponding to "AL", "AM", and "AN" listed in Applicants' December 5, 2005 Information Disclosure Statement have been made of record by the Examiner by citing these references on the Form PTO-892 attached to the Office Action, which Applicants gratefully acknowledge.

Claim 1 was objected to as containing a typographical error which Applicants have corrected by amending claim 1, line 14 to change "900" to - - 90 degrees - - as requested by the Examiner.

Claims 1-12 were rejected under 35 U.S. C. 103(a) as being unpatentable over *Huisman et al. U.S Patent No. 6,963,048* taken with *Bernard et al. U.S. Patent No. 3,339,057* for the reasons set forth on page 3 of the Office Action. Essentially the Examiner's position was that *Huismann et al.* discloses the welding torch recited in the claims except for features which were considered within the skill of the art as evidenced by *Bernard et al.* The

Examiner has also cited *GB 2,120,692 A* as showing a prior art welding wire buffer with an associated sensor.

This rejection is respectfully traversed.

As set forth in claim 1 as amended, Applicants' invention provides a welding torch including a torch body and a drive unit for conveying a welding wire, particularly for different wire-conveying speeds or a forward/rearward wire conveyance, as well as a hose pack connected to the torch body at an angle relative to the central axis of the welding torch. A wire core for the welding wire or the welding wire itself follows a curved course to form a wire buffer storage, and the amount of welding wire contained in the wire buffer storage is adjustable by a change of the curved course. The wire buffer storage is arranged immediately after the region of connection of the hose pack within the torch body, and the hose pack is arranged at an angle of up to 90 degrees relative to the central axis of the welding torch.

In this way, Applicants' invention provides a welding torch which has a simple and compact structure and exhibits an enhanced welding wire conveyance dynamic behavior. Due to the curved

course, excess welding wire will be taken up such that the excess welding wire need no longer be conveyed back over the entire hose pack, which brings about a substantial improvement in the response behavior or dynamic behavior because the wire buffer storage is arranged immediately in front of the drive unit within the torch body and hence only very short conveying paths will have to be covered during the welding process at changes in speed or a reversal of the conveying direction.

The primary reference to *Huismann et al.* describes a welding torch including a drive unit and a wire buffer behind the drive unit. When retracting the welding wire, an amount of wire can be stored in the buffer since the unit diameter of a tube arranged within the buffer is larger than the outer diameter of the liner arranged around the welding wire. The welding wire normally runs in a straight line through the wire buffer. When reversing the movement of the welding wire, a break out of the welding wire or the liner within the wire buffer will result in an undefined manner.

In contrast to the teaching of *Huismann et al.*, the welding wire in the wire buffer of the welding torch set forth in Applicants' claim 1, as amended, runs along an arc. Therefore, the welding wire can be moved within the wire buffer without

relevant resistance when the movement of the welding wire is reversed. The drive unit within the welding torch will operate in a substantially force-free manner and thereby considerably enhance the dynamic behavior of the conveyance of the welding wire. The drive unit of the welding torch, according to *Huismann et al.*, however, must force the welding wire against the second drive unit feeding the wire with a predetermined velocity forward to the welding torch. Therefore, the dynamic behavior of the conveyance of the welding wire will not be optimal, and it is not possible to change the direction of motion of the welding wire very quickly. Further, in case of soft materials for the welding wire the risk exists that the welding wire will fold within the wire buffer.

Bernard et al. describes a welding torch with a construction behind the welding torch, which enables a light compensation when the welding torch is moved along the workpiece. It is respectfully submitted that this contruction cannot be compared with a wire buffer as set forth in Applicants' claim 1 as amended. At the time *Bernard et al.* made their welding torch, a retraction of the welding wire during welding was not done. The welding torch according to *Bernard et al.* does not include a drive unit enabling such retraction of the welding wire. Accordingly, it is respectfully submitted that a person skilled

in the art would have no reason to combine the *Huismann et al.* reference and the *Bernard et al.* reference to achieve the welding torch as recited in Applicants' claim 1 as amended.

The *GB 2,120,692 A* reference has been considered but is believed to be no more pertinent as this reference fails to disclose a welding torch having the structure recited in Applicants' claim 1 as amended or teach the benefits that are achieved with that structure.

In summary, claim 1 has been amended. In view of the foregoing, it is respectfully requested that the claims be allowed and that this application be passed to issue.

Respectfully submitted,
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I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 4, 2007.

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